

PARTIAL TRANSCRIPTION - ORIGINAL FOLLOWS

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[2 lines excised]

[words excised] Program 437 became operational in June 1964. Beyond Program 437, in the ADC view, lay an advanced version known as Program 922. Still further in the future was the Satellite Interceptor System (SIS), the subject of an ADC ROC (ADC-ROC-2-67) published on 17 March 1967.⁵⁹
[words excised] Program 437. Following the declaration of operational capability at Johnston Island two THOR launch emplacements were available there periodic launches were accomplished for the purpose of maintaining the skills of the launch crews.
[7 lines excised]

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Program 437 Following the declaration of operational capability at Johnston Island, the THOR team's assignments were to maintain the system in readiness for a possible launch. The first launch of a THOR missile from Johnston Island occurred on 17 March 1967.

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The third CEL from Johnston Island, therefore, did not occur until 30 March 1967.⁶⁰

In May 1967, ADC asked USAF for three training payloads for use in maintaining launch proficiency

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No launches were conducted during the remainder of 1967, but it was planned to conduct a Program 437 mission in February 1968.⁶²

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No launches

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planned to conduct a Program 137 mission in January 1968. ⁴²

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"B2"

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This optimism prevailed until early December 1967 when it was discovered that malfunctions in the Univac 642B computer at GGS-1 would prevent acceptance by ADC before the end of the year. Since the computer was the responsibility of SMAMA until accepted by ADC, this headquarters took the position, in late December, that it would maintain only the radar portion of GGS-1 until the completion of acceptance testing on the computer.⁶⁹

There also arose a larger problem of radar reflectivity involving the total guidance system on Johnston Island. This problem had arisen earlier in connection with GGS-2 when there proved to be interference between that station and LE-1. This difficulty had been solved temporarily by erection of a large (24 feet by 70 feet) and makeshift copper mesh screen between GGS-2 and LE-1.

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There also arose a larger problem of radar reflectivity involving the total guidance system on Johnston Island. This problem had arisen earlier in connection with GCS-2 when there proved to be interference between that station and LE-1. This difficulty had been solved temporarily by erection of a large (24 feet by 70 feet) and makeshift copper mesh screen between GCS-2 and LE-1. No permanent answer had been found to this problem by the end of 1967 and ADC requested that action be suspended in this matter until the general problem of reflectivity involving all possible combinations of GCS-1, GCS-2, LE-1 and LE-2 had been addressed. ADC asked that SMAMA provide at least a tentative solution before the proposed demonstration launch to

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demonstrate the capability of GGS-1 of a Program 437 missile on 15 February 1968.⁷⁰

At any rate, ADC did not believe that SMAMA had provided it with an operational system at GGS-1 by the end of 1967 and declined to accept it. Meetings among the interested parties for the purpose of reaching agreement were scheduled for mid-January 1968. Meanwhile, ADC personnel provided maintenance for only the radar portion of GGS-1.⁷¹

BURNER II Launches From Vandenberg. Before the transfer of this mission to ADC on 1 April 1967, SAC was responsible for lifting into earth orbit, from Vandenberg AFB in support of research and development program for Air Force Systems Command. The THOR booster was used to put BURNER II into orbit. Since ADC had become familiar with

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demonstrate the capability of GGS-1 of a Program 437 missile on 15 February 1968.⁷⁰

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) BURNER II Launch from Vandenberg. Before the transfer of this mission to ADC on 1 April 1967, SAC was responsible for launching into earth orbit, from Vandenberg AFB in support of operations in the defense program for Air Force Systems Command. The THOR booster was used to put BURNER II into orbit. Since ADC had become familiar with the THOR booster as a result of Program 437 activities at Johnston Island and carried out Program 437 training at Vandenberg, the transfer of the mission was logical.⁷²

Between assumption of the mission on 1 April 1967 and the end of the year, the ADC unit at Vandenberg accomplished three BURNER II launchings. The initial ADC

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launching of 29 June experienced what was considered surprising success for the first try. An entirely normal launch occurred, with two scientific satellites (an Army SECOR and a Navy AURORA I) being placed in a circular orbit of about 2,100 nautical miles. The launching of 22 August was even better, since the apogee and perigee of the satellite more closely approximated the established standard. The 25th Aerospace Defense Squadron (the responsible ADC unit at Vandenberg) made it three-for-three in 1967 with another successful launching on 11 October. In this instance, the apogee of the satellite was 464 nautical miles, the perigee 374 miles. Although the launching was considered successful, the orbit was not as nearly circular as desired. The difference between apogee and perigee was 94 miles, as against a standard of 50 miles.⁷³

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Conversion of Program 437 Telemetry. As of mid-1967, Program 437 operations were monitored by L-band telemetry (225-260 megacycles). This was satisfactory at the time, but promised, eventually, to run counter to a USAF requirement that all telemetry be converted to S-band (2200-2900 megacycles) by 1 January 1970. Since Program 437 was

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expected to remain operational into Fiscal Year 1976, conversion to S-band was necessary. Study revealed that full conversion to S-band would cost something over seven million dollars. ADC also presented to USAF, in July 1967, two options. In late August 1967 ADC was informed that USAF had approved conversion of the complete Program 437 system to S-band. The necessary ROC was published by ADC on 7 November 1967. USAF had taken no formal action on this requirement by the end of the year.⁷⁴

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